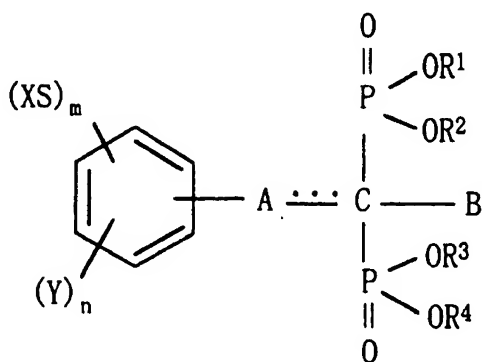


CLAIMS

1. A pharmaceutical composition for being administered to periodontal pockets, comprising a bisphosphonic acid derivative or a salt thereof, and a base which undergoes liquid-gel phase transition upon contact with physiological body fluid in the periodontal pocket.
2. The pharmaceutical composition for being administered to periodontal pockets according to claim 1, wherein said bisphosphonic acid derivative or the salt thereof is a methane bisphosphonic acid derivative represented by Formula (I):



- [wherein X represents C₁-C₈ linear or branched alkyl or cycloalkyl (in case of cycloalkyl, the number of carbon atoms is 3 to 8) which is not substituted or which has (a) substituent(s) having nitrogen, oxygen and/or silicon atom(s), phenyl or naphthyl (the phenyl or naphthyl may be substituted by C₁-C₈ linear or branched alkyl or cycloalkyl (in case of cycloalkyl, the number of carbon atoms is 3 to 8), C₁-C₈ linear or branched alkoxy, halogen and/or hydroxy); Y represents C₁-C₈ linear or branched alkyl, trifluoromethyl, C₂-C₈ linear or branched alkenyl, C₃-C₈ cycloalkyl, C₁-C₈ alkoxy or halogen (excluding chlorine substituting at *p*- position); m and n independently represent 0, 1, 2 or 3; ··· represents double bond or single bond; A represents -(D)_b-(CH₂)_c- (wherein D represents sulfur, oxygen, NR⁵ (wherein R⁵ represents hydrogen or C₁-C₈ linear or branched alkyl or cycloalkyl (in case of cycloalkyl, the number of carbon atoms is 3 to 8), D binding directly to the methane

bisphosphonic acid, c represents an integer of 0 to 3, b represents 0 or 1), or
 $-(CH=CH)_d-CH=$ (wherein d represents 0 or 1, and when A is $-(CH=CH)_d-CH=$, B
 does not exist); B represents hydrogen, C₁-C₈ linear or branched alkyl or cycloalkyl
 (in case of cycloalkyl, the number of carbon atoms is 3 to 8), hydroxy or
 5 trialkylsiloxy (each of the alkyl groups therein is C₁-C₈ linear or branched alkyl or
 cycloalkyl (in case of cycloalkyl, the number of carbon atoms is 3 to 8); R¹, R², R³
 and R⁴, the same or different, represent hydrogen, C₁-C₈ linear or branched alkyl or
 cycloalkyl (in case of cycloalkyl, the number of carbon atoms is 3 to 8), or a
 pharmaceutically acceptable cation]

10 or a hydrate thereof.

3. The pharmaceutical composition for being administered to periodontal
 pockets according to claim 1 or 2, wherein X in said Formula (I) represents C₁-C₈
 linear or branched alkyl; Y represents the same meanings as described above; m and
 n independently represent 0 or 1; $\cdot \cdot \cdot$ represents single bond; A represents
 15 $-S-(CH_2)_c-$ (wherein c represents an integer of 0 to 3); B represents hydrogen or C₁-
 C₈ linear or branched alkyl; and R¹, R², R³ and R⁴ represent the same meanings as in
 claim 2.

4. The pharmaceutical composition for being administered to periodontal
 pockets according to any one of claims 1 to 3, wherein said base is at least one
 20 polysaccharide.

5. The pharmaceutical composition for being administered to periodontal
 pockets according to claim 4, wherein said polysaccharide is gellan gum and/or
 carageenan.

6. The pharmaceutical composition for being administered to periodontal
 25 pockets according to any one of claims 1 to 5, which is for therapy of a periodontal
 disease.

7. A method for treating periodontal pockets, comprising administering an

effective amount of said composition according to any one of claims 1 to 5 to a periodontal pocket.

8. A therapeutic method for a periodontal disease, comprising administering an effective amount of said composition according to any one of claims 1 to 5 to a

5 periodontal pocket.

9. Use of said composition according to any one of claims 1 to 5, for the production of a pharmaceutical composition for being administered to periodontal pockets.

10. Use of said composition according to any one of claims 1 to 5, for the
10 production of a pharmaceutical composition for therapy of a periodontal disease.